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EXAMINER

COLE, LAURA C

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| ART UNIT | PAPER NUMBER |
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1744

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/697,213

Applicant(s)

JIMENEZ ET AL.

Examiner

Laura C. Cole

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-7,9-13,15-38,45,47-53,55-57,59-61,64-66 and 75-87 is/are pending in the application.
- 4a) Of the above claim(s) 2-7,9-13,15-38,50-53,55-57,59-61,64-66,76 and 78 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45,47-49,77 and 79-87 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 08012005.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. In the Information Disclosure Statement of 01 August 2005, the third reference cited, "5,483,722" to "Scheier et al." has previously been cited on the Information Disclosure Statement of 14 October 2004.

The French Patent 38440 on Page 2 Line 14 was not included in the Information Disclosure Statement of 14 October 2004 and a copy of this document is not available to the Examiner, if this is an erroneous citation in the specification, it should be corrected.

Claim Objections

2. Claims 81 and 85-87 are objected to because of the following informalities:

Claim 81 Line 1 states that it depends from claim 46, however claim 46 has been cancelled. It is unclear as to what claim 81 is meant to depend from.

Claim 85 recites the limitation "said first surface" in Line 3. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 45 and 79-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urbush, USPN 3,316,576 in view of Halm, USPN 5,651,158 (herein Halm '158).

Urbush discloses a toothbrush comprising a handle (12), a head (18) connected to the handle by a neck element (14), and a mechanical vibratory device (portions 40, 41, 42, 43) which causes the head to vibrate (via 21; Column 2 Lines 33-39). The mechanical vibratory device is located in the region adjacent to the head (see Figures). Urbush utilizes a conventional toothbrush (Column 1 Lines 48-49) and the device is capable of using various sizes and types of conventional toothbrushes in the vibratory

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portion (Column 1 Lines 13-20). Urbush does not include a head comprising movable elements.

Halm '158 discloses a toothbrush comprising a head (41) that comprises a first surface and a second surface (first surface is the uppermost side of the head as shown in Figures 4C-4E, and the second surface is the lowermost side of the head as shown in Figures 4C-4E) and wherein the head comprises a first cleaning element extending from the first surface that is non-movable relative to the head (left most cleaning element "47" as shown in Figures 4C-4E) and a second cleaning element extending from the first surface that is non-movable relative to the head (rightmost cleaning element "47"), a plurality of third cleaning elements disposed between the first and second cleaning elements (46) being movable relative to the head (see Figure 4D; Column 5 Lines 27-32), and a discontinuity in the head opposite at least one of the plurality of third cleaning elements (portions 44 or 45; see Figures 4A-4F) to allow for movement at the at least one of the plurality of third cleaning elements. The discontinuity is on the second surface opposite the at least one of the plurality of third cleaning elements (see Figures 4C and 4D particularly, second surface showing discontinuity). At least one of the third cleaning elements is movable toward each of the first and second cleaning elements (see Figure 4D, the rightmost of the third cleaning elements are movable towards the first cleaning element, the leftmost of the third cleaning elements are movable towards the second cleaning element). There is a fourth cleaning element (any other cleaning element "47") that is disposed between the first cleaning element and at least one of the third cleaning elements (see Figure 4B), the fourth cleaning element being mounted to

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and non-movable relative to the head at the location of the mount (see Figures). If the fourth cleaning element is one of cleaning elements "47" two or three elements away from the first cleaning element, then at least one of the plurality of third cleaning elements (the right half of the third cleaning elements) is movable toward each of the first and fourth cleaning elements. See Attachment A.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to substitute the conventional toothbrush head of Urbush for one having a movable portion and a fixed portion with a resilient membrane between the fixed and movable portions, as Halm '158 teaches, so that the toothbrush can resiliently conform to the inner mouth and tooth surfaces of which the toothbrush is cleaning to better aid in the cleaning of teeth and the oral cavity.

4. Claims 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urbush, USPN 3,316,576 in view of Halm, USPN 5,651,158 (herein Halm '158), and further in view of Halm, USPN 6,178,582 (herein Halm '582).

Urbush and Halm '158 disclose all elements above in paragraph 3, however do not include at least one cleaning element included in an area between the first or second and third cleaning elements. It is noted that Halm '158 includes cleaning elements (46, 47) on both the fixed and movable portions.

Halm '582 discloses a head (2) of a fixed portion (6) and a movable portion (67) that has a resilient membrane (10) extending between at least a portion of the fixed and movable portions (see Figures 18-21), the membrane is capable of flexing to alter its original orientation during use (see Figure 20) and to recover to assume its original

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orientation (Column 1 Line 62 to Column 2 Line 9). '582 includes at least one additional cleaning element (see Figures 18) in an area between first or second and third cleaning elements. The cleaning elements are bristles, which are considered to be "wipers" ("wiper" is defined as "something, such as a towel, used for wiping", wherein "wiping" is in turn defined as "to subject to light rubbing or friction, as with a cloth or paper, in order to clean or dry." Both definitions are from *The American Heritage® Dictionary of the English Language, Fourth Edition Copyright © 2000 by Houghton Mifflin Company.*)

The wipers are mounted on the resilient membrane and "rotate" towards one another upon application of sufficient force on the toothbrush (see comparison of Figures 19-20, especially shown in the two rightmost wiper tufts on "10" are rotated towards each other due to the force imparted by teeth "12".)

It would have been obvious for one of ordinary skill in the art to modify the toothbrush of Urbush and Halm '158 to further include an additional cleaning element in an area between the fixed and movable portions, as Halm '582 teaches, in order to increase the amount of cleaning elements being employed to clean teeth and thereby increasing the surface area of cleaning elements that are effecting the teeth and gums.

5. Claims 45, 77, and 79-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hafliger et al., USPN 6,802,097 in view of Halm, USPN 5,651,158 (herein Halm '158).

Hafliger et al. discloses a handle (1), head (3) connected to the handle by a neck element (4), and a mechanical vibratory device (10) which causes the head to vibrate (Column 2 Lines 40-44) wherein the mechanical vibratory device is located in the head

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or in a region adjacent to the head (see Figures 1-4) and operatively connected to an electrical power source (see Figures, Column 2 Lines 44-47). Hafliger does not disclose that the head comprises movable elements.

Halm '158 discloses all elements above described in paragraph 3.

It would have been obvious for one of ordinary skill in the art to modify the toothbrush head configuration of Hafliger et al. for one having a movable portion and a fixed portion with a resilient membrane between the fixed and movable portions, as Halm '158 teaches, so that the toothbrush can resiliently conform to the inner mouth and tooth surfaces of which the toothbrush is cleaning for better or more effective cleaning of teeth.

6. Claims 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hafliger et al., USPN 6,802,097 in view of Halm, USPN 5,651,158 (herein Halm '158) as applied to claim 45, and further in view of Halm, USPN 6,178,582 (herein Halm '582).

Hafliger et al., Halm '158, and Halm '582 disclose all elements above in paragraphs 3, 4, and 5.

It would have been obvious for one of ordinary skill in the art to modify the toothbrush of Hafliger et al. and Halm '158 to further include an additional cleaning element in an area between the fixed and movable portions, as Halm '582 teaches, in order to increase the amount of cleaning elements being employed to clean teeth and thereby increasing the surface area of cleaning elements that are effecting the teeth and gums.

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7. Claims 85-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urbush, USPN 3,316,576 in view of Halm, USPN 5,651,158 (herein Halm '158) and in further view of Zimmer, USPN 6,463,618.

Urbush discloses all elements above in paragraph 3, however Urbush does not include a head comprising movable elements including elastomeric wipers.

Halm '158 includes a head with the first cleaning element (leftmost cleaning element "47" as shown in Figures 4C-4E) extending from a first upper surface (see Figures) that is non-movable relative to the head, a second cleaning element extending from the first surface that is non-movable relative to the head (rightmost cleaning element "47" as shown in Figures 4C-4E), and a plurality of movable wipers disposed between the first and second cleaning elements (46), each of the movable wipers being movable relative to the cleaning head (see Figure 4D) within a discontinuity in the head opposite each movable wiper (see Figures 4C and 4D), and the discontinuity is and visible on a second bottom surface (see Figures 4C and 4D). See Attachment A. Halm '158 does not disclose that the wipers are elastomeric.

Zimmer discloses a toothbrush wherein cleaning wiper rod elements are made from an elastomeric material (Column 2 Lines 53-65) in order to create flexible friction cleaning elements for the teeth and gums (Column 3 Lines 1-5).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to substitute the conventional toothbrush head of Urbush for one having a movable portion and a fixed portion with a resilient membrane between the fixed and movable portions, as Halm '158 teaches, so that the toothbrush can resiliently

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conform to the inner mouth and tooth surfaces of which the toothbrush is cleaning to better aid in the cleaning of teeth and the oral cavity and it would have been obvious for one of ordinary skill in the art to substitute the wipers of Urbush and Halm for ones made from elastomeric material, as Zimmer teaches, in order to provide a flexible friction tooth and gum cleaning element.

Response to Arguments

8. Applicant's arguments filed 01 August 2005 have been fully considered but they are not persuasive.

Examiner has reconsidered the prior art previously made of record, the new art presented in the Information Disclosure Statement filed 01 August 2005, and has extended the search, however the Examiner has found that the amendment does not overcome the prior art (see rejections made above). Examiner hopes that by including Attachment A that the rejection is additionally clarified for the Applicant.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C Cole whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on (571) 272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LCC

LCC
17 October 2005


JOHN KIM
SUPERVISORY PATENT EXAMINER

ATTACHMENT A

U.S. Patent

Jul. 29, 1997

Sheet 4 of 5

5,651,158

